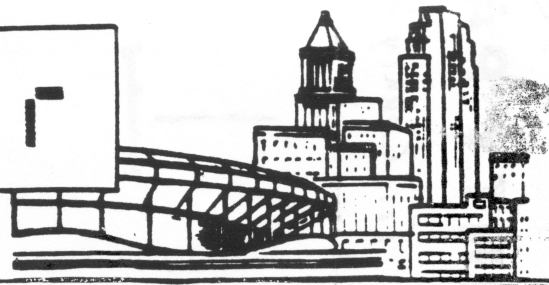


# TIME~~X~~ sinclair

## USERS GROUP OF CINCINNATI



Vol. 2 No. 7

August, 1984

### NEXT MEETING:

August 26, 1984

September 23, 1984

All meetings are held at 2:00 P.M. in room 506, Crosley Tower, University of Cincinnati.

Things have been quite this last month, everyone must be on vacation. Send us a postcard!

+++ Timex has finally shipped the 2068 technical manual. I have mine.

+++ Jack Roberts still has 2020 printers and 2050 modems.

→ Picnic

The First Annual T/S Users Group Picnic is Sunday August 26, 1984, 12 noon till 5:00+ Bring your own food and drinks and one item for the group to share. We will have a grill and charcoal. This will take the place of our August meeting. We will have it rain or shine.

We will try to get one of these areas:

- 1) Kestrel Point Shelter
- 2) Mallard Pond View Shelter
- 3) Island View

Please call Rick Johnson at 825-1449 or Bill Sieber at 353-3482 till 11:30 AM to confirm the location.

Everyone is invited, bring your family and recreational equipment. Sorry, no computers.

NOTE: A motor vehicle permit is required for Winton Woods. These may be obtained at Activity centers, Ranger stations, or the park entrance booth. \$1.00/day or \$3.00/yr.

→ See reverse side for map to Winton Woods and picnic area.

### CONTENTS

Map to picnic	2
T/S 2068 tape copy utility	3

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\*\*\*\*\*

Please submit all articles to:

Bill Bernard  
6316 Firestone Dr.  
Fairfield, OH 45014

Tri County Sh

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This will take the place of our  
August meeting. We will have it rain or  
shine.

Areas: I Spent Beauty Dell

- FACILITIES**...  
WEST FORN OF MILL CREEK GARD  
MARCOUS PHYSICAL FITNESS TRAI

HERON POND  
MAY 1 AND 2000

**HALLAND POOL**  
**HAMBOR POINT AREA**

BI-CYCLE TRAIL  
OF ORMA TOWN / PLASTER STATION

PAK DISTRICT OFFICE  
ADAMS CENTER

**HUNDS COUNTRY  
HORSEBACK RIDING TRAIL**

LONGFISHER MOUNTAIN TRAIL  
CASTLE FAN MOUNTAIN TRAIL

**MAINTENANCE**  
SOLICITATIONS

**GOLF CLOUTIER**  
**TOTEM TRAP, SD**

**POSITIVE THINKING**  
**DRUGS**

LAKE

WEST MOON

THESE AVAILABLE

2

48/36/0

10/20/01

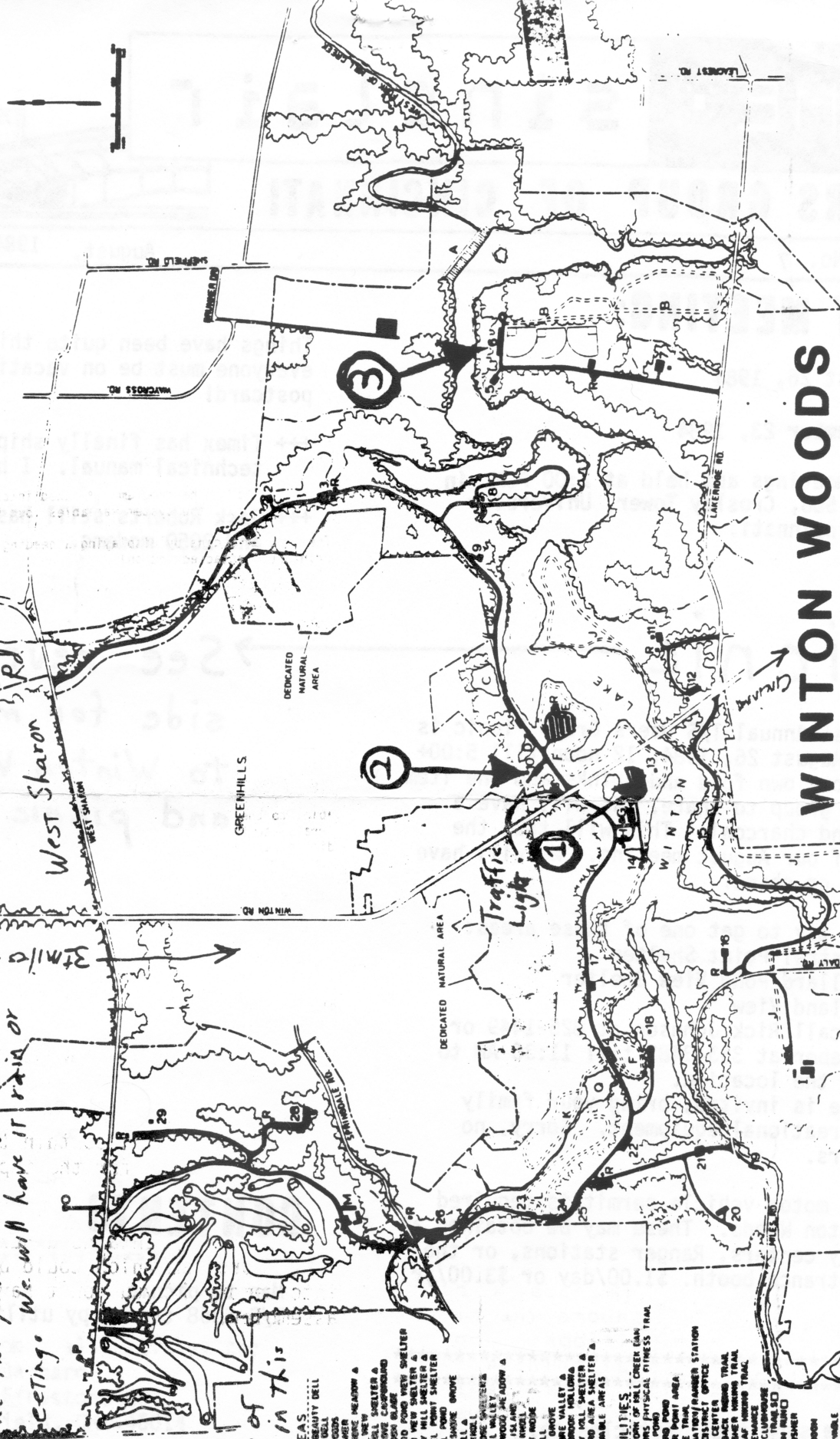
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15/12/2015

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on Saturday 8/26/01.  
Everyone is invited - Bring Your Family (No computers) and recreational equipment.

Note Motor Vehicle Permit Required  
when at Activity centers, Ranger Station,





OFFICERS:

Rick Johnson, President 825-1449  
Kurt Albrecht, Treasurer 542-3921  
Gary Szekeres, Secretary 331-8966

T/S 2068 Tape Copy Utility

This machine language program can be used to copy programs, arrays, screens, and code from one tape to another. The program copies the entire program, array, etc into memory; and then writes it to the output tape. The program is designed to use two parallel control ports to start/stop both the input and output cassette tape recorders. However, the user may manually control the cassette tape recorders. The user could even use a single cassette tape recorder for both the input and output tapes.

To use this program, type:

- 1) LOAD "tapecopy"CODE
- 2) PRINT USER 23760

Note: The program is tucked into system RAM above the system variables, but below the stack.

The program begins by displaying a heading line on the TV and printer(if attached and on).

If the user has a parallel control port at address 127, bit 0 on should start the input cassette tape recorder; bit 1 on should start the output cassette tape recorder. The bits must be latched on until port 127 is again addressed. The program will automatically control the starting/stopping of both cassette tape recorders.

In a manual mode of operations, start the input cassette tape recorder when the heading line appears on the TV screen. The program will read the input tape and display the type(program, array, code), name, starting address/line number, and program size. When the copy? prompt appears on the lower screen, stop the input cassette tape recorder and start the output cassette tape recorder. Then reply 'Y' (upper or lower case is acceptable) to the prompt. The program will then write the program, array, etc to the output tape. When it is finished it will display an '\*' under the column marked C(opped) on the TV screen; it will then write the line to the printer. Stop the output cassette tape recorder and start the input cassette tape recorder.

Repeat until finished.

If you reply anything but 'Y' to the copy? prompt the program will continue to read the input tape. Therefore the user must be sure the input cassette tape recorder continues to play and the output cassette tape recorder is stopped.

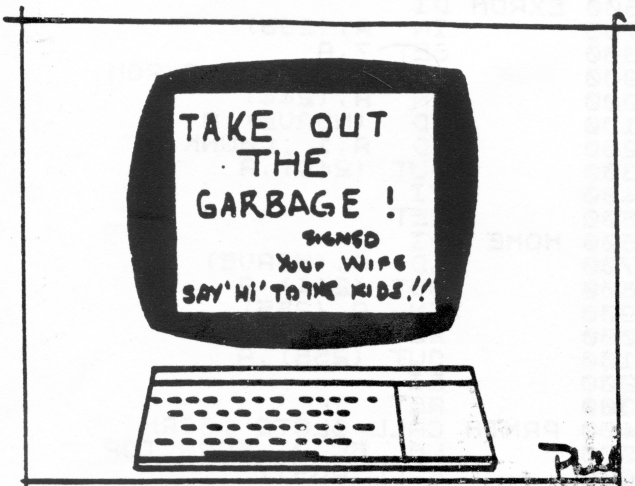
The user could use only one cassette tape recorder by switching input/output tapes and the play/record switches at the appropriate times.

The next two pages contain the Zeus assembler source for the tape copy program.

The back page contains a HEX dump of the program which could be POKED into memory if you don't have an assembler.

THIS SPACE WAS HELD UNTIL  
PRESS TIME FOR YOUR ARTICLE,  
BUT YOU PUT OFF SUBMITTING  
IT. WE CAN'T PUBLISH WHAT  
YOU DON'T SEND US.  
WE ESPECIALLY NEED ARTICLES  
FOR THE ZX31 & T/S 1000/1500  
COMPUTERS.

Cartoon is reprinted from the SINCUS NEWS  
a publication of the Sinclair Users Society  
of Johnson City, New York



Thanks to Paul Hill, SINCUS

```

00100  ORG 23760
00200  ENT
00300  CALL STOPT
00400  LD HL,#808D
00500  PUSH HL
00600  CALL #6200 ;CLS
00700  CALL PRNTH
00800  CALL PAPRH
00900  AGAIN CALL STRT1
01000  CALL EXROM
01100  READH SCF
01200  LD IX,HTYPE
01300  LD A,0 ;READ LABEL
01400  LD DE,17
01500  CALL 252
01600  JR NC,READH
01700  CALL HOME
01800  LD A,(HTYPE)
01900  SLA A ;TIMES 8 FOR
02000  SLA A ;INDEX INTO
02100  SLA A ;PTYPE TABLE
02200  LD C,A
02300  LD B,0
02400  LD HL,PTYPE ;BASE
02500  ADC HL,BC ;+ INDEX
02600  LD B,8 ;LENGTH
02700  CALL TV
02800  LD HL,(DFCC) ;SCAN
02900  LD (SAVE),HL ;ADDR
03000  LD HL,HNAME
03100  LD B,10 ;LENGTH
03200  CALL TV
03300  LD HL,BLANK
03400  LD B,1
03500  CALL TV
03600  CALL EXROM
03700  SCF
03800  LD IX,(PROG) ;ADDR
03900  LD A,255
04000  LD DE,(HLEN) ;LEN
04100  CALL 252 ;READ TAPE
04200  PUSH AF
04300  CALL HOME
04400  CALL STOPT
04500  POP AF
04600  JP NC,SKIP ;OK?-NO
04700  LD A,(HTYPE)
04800  CP 0 ;BASIC PGM
04900  JR NZ,CADDR ;NO
05000  LD A,(HADDR+1)
05100  BIT 7,A ;STRT ADDR?
05200  JR Z,CADDR ;YES
05300  LD HL,BLANK
05400  LD B,6 ;LENGTH
05500  CALL TV
05600  JR P,SIZE
05700  CADDR LD HL,(HADDR)
05800  CALL NUMER
05900  LD HL,BLANK ;ONE
06000  LD B,1 ;BLANK BYTE
06100  CALL TV
06200  P,SIZE LD HL,(HLEN) ;PGM
06300  CALL NUMER ;SIZE
06400  LD HL,KCOPY ;COPY?
06500  LD B,6
06600  CALL PRNT1 ;LOWER
06700  LD A,143
06800  LD HL,#8034 ;FLASHA
06900  PUSH HL
07000  CALL #6200
07100  GETIN LD HL,#801A
07200  PUSH HL
07300  LD DE,300 ;CYCLES
07400  LD HL,200 ;PERIOD
07500  CALL #6200 ;PARP
07600  HALT ;KEYBOARD WAIT
07700  LD A,(FLAGS)
07800  BIT 5,A ;ANYTHING?
07900  JR Z,GETIN ;NO
08000  RES 5,A ;FLG OFF

```

```

08100  LD (FLAGS),A
08200  LD A,(LASTK) ;REPLY
08300  PUSH AF
08400  LD HL,#8021
08500  PUSH HL
08600  CALL #6200 ;CLS BOT
08700  POP AF
08800  CP "Y" ;YES?
08900  JR Z,COPY
09000  CP "N" ;YES?
09100  JP Z,COPY
09200  SKIP CALL ENDTU
09300  JP AGAIN
09400  COPY CALL STRT2 ;STRT TP
09500  CALL WAIT
09600  CALL WAIT
09700  CALL EXROM
09800  SCF
09900  LD IX,HTYPE
10000  LD A,0 ;WRITE LABEL
10100  LD DE,17 ;LENGTH
10200  CALL 104 ;WRITE TP
10300  JP NC,ERROR ;OK?-NO
10400  CALL HOME
10500  CALL WAIT
10600  CALL EXROM
10700  SCF
10800  LD IX,(PROG) ;OUT
10900  LD A,255
11000  LD DE,(HLEN) ;LEN
11100  CALL 104 ;WRITE DAT
11200  JP NC,ERROR ;OK?-NO
11300  CALL HOME
11400  CALL STOPT
11500  LD HL,ASTER
11600  LD B,2
11700  CALL TV
11800  CALL ENDTU
11900  LD B,8 ;# SCAN LNS
12000  LD HL,(SAVE)
12100  LD A,L
12200  AND #E0 ;MODULO 32
12300  LD L,A
12400  DI
12500  NEXTA PUSH HL
12600  PUSH BC
12700  LD DE,#8024
12800  PUSH DE
12900  CALL #6200 ;PRSCAN
13000  POP BC
13100  POP HL
13200  INC H ;NEXT LINE
13300  DJNZ NEXTA
13400  EI
13500  JP AGAIN ;REPEAT
13600  EXROM DI
13700  IN A,(255)
13800  SET 7,A
13900  OUT (255),A ;EXROM
14000  IN A,(244)
14100  LD (HSAVE),A
14200  LD A,1 ;CHUNK 0
14300  OUT (244),A
14400  EI
14500  RET
14600  HOME DI
14700  LD A,(HSAVE)
14800  OUT (244),A
14900  IN A,(255)
15000  RES 7,A
15100  OUT (255),A
15200  EI
15300  RET
15400  PRNTH CALL SLOCT2 ;SCAN
15500  LD BC,0 ;SCAN TOP
15600  CALL POSIT
15700  PRNTX LD HL,TITLE
15800  LD B,65 ;LENGTH
15900  CALL PRINT
16000  RET

```



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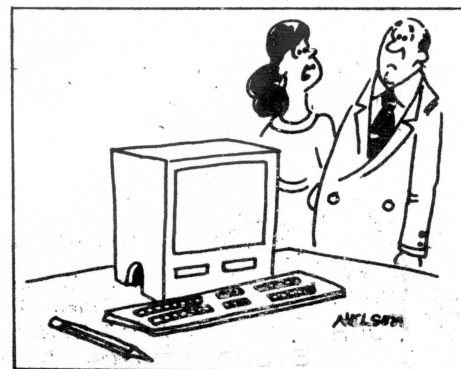
16100 PAPRH CALL SLCT3 ; PRINTER
16200 JR PRNTX
16300 ; *****
16400 ; IN: HL-ADDR DATA
16500 ; B -LENGTH DATA
16600 ; *****
16700 TV PUSH HL
16800 PUSH BC
16900 CALL SLCT2 ; SCRN
17000 POP BC
17100 POP HL
17200 JR PRINT
17300 ENDTV CALL SLCT2
17400 LD A,13
17500 RST 16
17600 LD A,(SPOSN+1)
17700 CP 2
17800 RET NZ
17900 LD HL,#808E
18000 PUSH HL
18100 CALL #6200 ; SCROL
18200 CALL PRNTH
18300 LD BC,#1500
18400 CALL POSIT
18500 RET
18600 ; *****
18700 ; IN: HL-DATA ADDR
18800 ; B -DATA LENGTH
18900 ; *****
19000 PRINT LD A,(HL)
19100 RST 16
19200 INC HL
19300 DJNZ PRINT
19400 RET
19500 ; *****
19600 ; IN: HL-DATA ADDR
19700 ; B -DATA LENGTH
19800 ; *****
19900 PRNT1 PUSH HL
20000 PUSH BC
20100 LD A,1
20200 CALL SLCT
20300 POP BC
20400 POP HL
20500 CALL PRINT
20600 RET
20700 SLCT2 LD A,2
20800 JR SLCT
20900 SLCT3 LD A,3
21000 JR SLCT
21100 SLCT LD HL,#8029 ; SELECT
21200 PUSHH PUSH HL
21300 CALL #6200
21400 RET
21500 ; *****
21600 ; IN: BC-LINE,COLUMN
21700 ; *****
21800 POSIT LD HL,#801E ; SETAT
21900 JR PUSHH
22000 ; *****
22100 ; IN: HL-BINARY #
22200 ; OUT: 5 DIGIT NUMBER TO
22300 ; SCREEN
22400 ; *****
22500 NUMER RR H
22600 RR L
22700 PUSH AF
22800 LD BC,5000
22900 CALL CNVRT
23000 LD BC,500
23100 CALL CNVRT
23200 LD BC,50
23300 CALL CNVRT
23400 LD BC,5
23500 CALL CNVRT
23600 POP AF
23700 RL L
23800 LD BC,1
23900 CALL CNVRT
24000 RET

```

```

24100 CNVRT LD A,0
24200 CNVT1 AND A
24300 SBC HL,BC
24400 JP M,CNVT2
24500 INC A
24600 JR CNVT1
24700 CNVT2 ADD HL,BC
24800 OR #30
24900 RST 16
25000 RET
25100 WAIT LD B,100
25200 WAIT1 HALT
25300 DJNZ WAIT1
25400 RET
25500 STOPT LD A,0
25600 JR OUTTP
25700 START1 LD A,1
25800 JR OUTTP
25900 START2 LD A,2
26000 OUTTP OUT (TADDR),A
26100 RET
26200 ERROR RST 8
26300 PTYPE DEFM /PROGRAM /
26400 DEFM /N.ARRAY /
26500 DEFM /C.ARRAY /
26600 DEFM /CODE /
26700 TITLE DEFM /TYPE NAME /
26800 DEFM / ADDR /
26900 DEFM / SIZE C /
27000 BLANK DEFM / /
27100 DEFM / /
27200 DEFM / /
27300 EOFLN DEFB 13
27400 ASTER DEFM / */
27500 KCOPY DEFM /copy? /
27600 HSAVE DEFB 0
27700 SAVEL DEFW 0
27800 HTYPE DEFB 0
27900 HNAME DEFM /1234567890 /
28000 HLEN DEFW 0
28100 HADDR DEFW 0
28200 DEFW 0
28300 PROG EQU 23635
28400 DFCC EQU 23684
28500 SPOSN EQU 23688
28600 LASTK EQU 23560
28700 FLAGS EQU 23611
28800 TADDR EQU 127

```



'I think we have a mouse, too.'

5C00	CD	D7	5E	21	8D	80	E5	CD
5C08	00	62	CD	35	5E	CD	47	5E
5CE0	CD	08	5E	CD	15	5E	37	DD
5CE8	21	51	5F	3E	00	11	11	00
5CF0	CD	FC	00	30	F1	CD	27	5E
5CF8	3A	51	5F	0B	27	0B	27	0B
5D00	27	4F	06	00	21	E5	5E	ED
5D08	4A	06	08	CD	4C	5E	2A	84
5D10	5C	22	4F	5F	21	52	5F	06
5D18	0A	CD	4C	5E	21	25	5F	06
5D20	01	CD	4C	5E	CD	15	5E	37
5D28	DD	2A	53	5C	3E	FF	ED	5B
5D30	5C	5F	CD	FC	00	F5	CD	27
5D38	5E	CD	D7	5E	F1	D2	AC	5D
5D40	3A	51	5F	FE	00	20	11	3A
5D48	5F	5F	0B	7F	28	0A	21	25
5D50	5F	06	06	CD	4C	5E	18	0E
5D58	2A	5E	5F	CD	9A	5E	21	25
5D60	5F	06	01	CD	4C	5E	2A	5C
5D68	5F	CD	9A	5E	21	43	5F	06
5D70	06	CD	78	5E	3E	8F	21	34
5D78	80	E5	CD	00	62	21	1A	80
5D80	E5	11	2C	01	21	03	00	CD
5D88	00	62	76	3A	3B	5C	0B	6F
5D90	28	EB	0B	AF	32	3B	5C	3A
5D98	08	5C	F5	21	21	80	E5	CD
5DA0	00	62	F1	FE	S9	28	0B	FE
5DA8	79	CA	B2	5D	CD	55	5E	03
5DB0	E0	5C	CD	DF	5E	CD	D1	5E
5DB8	CD	D1	5E	CD	15	5E	37	DD
5DC0	21	51	5F	3E	00	11	11	00
5DC8	CD	68	00	D2	E4	5E	CD	27
5DD0	5E	CD	D1	5E	CD	15	5E	37
5DD8	DD	2A	53	5C	3E	FF	ED	5B
5DE0	5C	5F	CD	68	00	D2	E4	5E
5DE8	CD	27	5E	CD	D7	5E	21	46
5DF0	5F	06	02	CD	4C	5E	CD	55
5DF8	5E	06	08	2A	4F	5F	7D	E6
5E00	E0	6F	F3	E5	C5	11	24	80
5E08	D5	CD	00	62	C1	E1	24	10
5E10	F2	FB	C3	E0	5C	F3	DB	FF
5E18	CB	FF	D3	FF	DB	F4	32	4E
5E20	5F	3E	01	D3	F4	FB	C9	F3

5E28	3A	4E	5F	D3	F4	DB	FF	CB
5E30	BF	D3	FF	FB	C9	CD	85	5E
5E38	01	00	00	CD	95	5E	21	00
5E40	5F	06	41	CD	72	5E	09	CD
5E48	89	5E	18	F2	E5	05	CD	85
5E50	5E	C1	E1	18	10	CD	85	5E
5E58	3E	0D	D7	3A	89	5C	FE	02
5E60	CD	21	8E	80	E5	CD	00	62
5E68	CD	35	5E	01	00	15	CD	95
5E70	5E	C9	7E	D7	23	10	FB	09
5E78	E5	C5	3E	01	CD	8D	5E	C1
5E80	E1	CD	72	5E	C9	3E	02	13
5E88	04	3E	03	18	00	21	29	80
5E90	E5	CD	00	62	C9	21	1E	80
5E98	18	F6	0B	1C	0B	1D	F5	01
5EA0	88	13	CD	C1	5E	01	F4	01
5EA8	CD	C1	5E	01	32	00	CD	C1
5EB0	5E	01	05	00	CD	C1	5E	F1
5EB8	CB	15	01	01	00	CD	C1	5E
5EC0	C9	3E	00	A7	ED	42	FA	00
5EC8	5E	3C	18	F7	09	F6	30	D7
5ED0	C9	06	64	76	10	FD	C9	3E
5ED8	00	18	06	3E	01	18	02	3E
5EE0	02	D3	7F	C9	CF	50	52	4F
5EE8	47	52	41	4D	20	4E	2E	41
5EF0	52	52	41	59	20	43	2E	41
5EF8	52	52	41	59	20	43	4F	44
5F00	45	20	20	20	20	54	59	50
5F08	45	20	20	20	20	4E	41	4D
5F10	45	20	20	20	20	20	20	20
5F18	41	44	44	52	20	20	53	49
5F20	5A	45	20	20	43	20	20	20
5F28	20	20	20	20	20	20	20	20
5F30	20	20	20	20	20	20	20	20
5F38	20	20	20	20	20	20	20	20
5F40	20	20	20	20	20	0D	20	2A
5F48	63	6F	70	70	3F	20	00	00
5F50	00	00	31	32	33	34	35	36
5F58	37	38	39	30	00	00	00	00
5F60	00	00	00	00	00	00	00	00
5F68	00	00	00	00	00	00	00	00
5F70	00	00	00	00	00	00	00	00
5F78	00	00	00	00	00	00	00	00

**TIMEX/SINCLAR USERS GROUP**  
**OF CINCINNATI**  
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**CINCINNATI, OHIO 45218**

